

REMARKS

I. Introduction

This is in response to the Office Action dated November 20, 2010.

The Office Action rejected claims 1-6 and 8-17 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application Publication No. 2005/0190775 (Tonnby et al., hereinafter Tonnby) in view of U.S. Patent No. 5,590,285 (Krause et al., hereinafter Krause).

Claims 18 and 20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Tonnby in view of Krause in further view of U.S. Patent No. 5,835,725 (Chiang et al., hereinafter Chiang).

In response, claims 1-6 and 8-20 have been amended. Claims 7 and 19 were canceled by a previous response. Claims 1-6 and 8-20 remain for consideration.

II. Examiner's Interview

We wish to thank the Examiner for the courtesy extended in the telephonic interview on with Kinza Hecht on Tuesday, March 2, 2010. During this interview, no agreement was reached. The independent claims are amended herein and additional arguments are presented with this response.

III. Rejections under 35 U.S.C. § 103

Independent claims 1 and 10 were rejected as being unpatentable over Tonnby in view of Krause. In order to "establish *prima facie* obviousness of a claimed invention, all claim limitations must be taught or suggested by the prior art." In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Furthermore, "all words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). See also MPEP § 2143.03. Neither of the cited references, either

alone or in combination, teaches all of the claim limitations of independent claims 1 and 10. Therefore, the withdrawal of the rejections under 35 U.S.C. §103(a) is respectfully requested.

The present application relates to establishing a network connection by requesting different IP addresses for different types of connections. The type of connection being established is indicated by a quality of service parameter in a request for the connection. For example, the quality of service parameter may indicate whether the requested connection is for a multimedia connection or a data connection. As described at page 16, line 17-21 of the specification, a request for a first or second network address may be implemented by a media access controller (MAC) using a first or second MAC address, respectively. Accordingly, when a multimedia connection is requested, a request is sent from the MAC for a first network address using a first MAC address. When a data connection is requested, a request is sent from the MAC for a second network address using a second MAC address. As described at page 12, lines 11-20 of the specification, a MAC typically has a single MAC address. However, in this application, a single MAC is assigned one of two MAC addresses, which are used to request two different types of IP addresses.

Independent claim 1 recites the above described aspects of the present application. In particular, independent claim 1 has been amended to recite the limitations:

receiving, at a media access controller (MAC), a first request for a connection from a requesting agent, the first request having a quality of service parameter indicating one of a multimedia connection and a data connection

sending to a dynamic host configuration protocol (DHCP) server a second request for one of a plurality of network addresses using one of first and second MAC addresses associated with the MAC based on the quality of service parameter, wherein the sending the second request comprises:

retrieving the quality of service parameter from the first request,

sending the second request for a first network address using the first MAC address if the quality of service parameter indicates the multimedia connection, and

sending the second request for a second network address using the second MAC address if the quality of service parameter indicates the data connection.
Independent claim 10 recites similar limitations.

Tonnby is directed to an access system for relating communication service providers and application service providers to users. As described in Tonnby, a user decision including VLAN, service and user port is sent to an administrator, which dynamically allocates to a relevant service agent a MAC address (called "SAMAC"), defining a relation. Users may connect to a DHCP server which has a set of IP addresses that it can allocate. However, Tonnby fails to disclose or suggest a "first request having a quality of service parameter indicating one of a multimedia connection and a data connection" as recited in amended claim 1. Tonnby describes a VLAN tag TAG 1 which contains a "quality of service Q having a level QoS1 denoted on the list L11 for the relation R11, which relation is defined by the service agent MAC address SAMAC1" (paragraph [0084]), where the SAMAC1 is a dynamically allocated unique MAC address for a service agent (SA1). However, the quality of service in Tonnby does not disclose or suggest "a quality of service parameter indicating one of a multimedia connection and a data connection" as recited in amended claim 1.

Additionally, the dynamic MAC addresses in Tonnby are not allocated based on a quality of service parameter, as in the present claimed application. Tonnby recites "[t]he quality of service for the relations are decided [sic] in agreements and are denoted for each relation in the register REG1 in FIG. 5. This is exemplified by a quality of service Q having a level QoS1 denoted on the list L11 for the relation R11, which relation is defined by the service agent MAC address SAMAC1" (paragraph [0084]). However, the relation defined by the MAC address is the relation between the service agent and a user (paragraphs [0058] and [0059]). Based on an agreement with the user, a quality of service is known for each user. Accordingly, in Tonnby, the MAC address is used to identify the user, which identifies the quality of service. In independent claim 1, the quality of service is retrieved, and the MAC address is selected based on the

quality of service. The MAC address in Tonnby is not chosen based on the quality of service, as in the present claimed application.

Further, although Tonnby describes using a DHCP server to allocate IP addresses, the DHCP server does not receive "a second request for one of a plurality of network addresses using one of first and second MAC addresses associated with the MAC based on the quality of service parameter" where a first MAC address is used "if the quality of service parameter indicates the multimedia connection" and a second MAC address is used "if the quality of service parameter indicates the data connection" as recited in amended claim 1. Rather, the DHCP server in Tonnby allocates IP addresses based on receiving a MAC address UMAC1 and a VLAN tag TAG 1. Tonnby recites "[t]he administrative unit dynamically allocates the unique service agent MAC address SAMAC1 to the service agent SA1 in a step 93" (paragraph [0078])." Although Tonnby may describe using a dynamically allocated MAC address of a service agent in the edge server, the selection of which MAC address to use is not based on a quality of service parameter that indicates a multimedia connection or a data connection, as recited in amended claim 1. Therefore, although Tonnby describes using a DHCP server that allocates IP addresses, the DHCP server in Tonnby does not receive "a second request for one of a plurality of network addresses using one of first and second MAC addresses associated with the MAC based on the quality of service parameter" where the quality of service parameter indicates "one of a multimedia connection and a data connection" as recited in amended claim 1.

Furthermore, although Tonnby describes different MAC addresses at a service agent corresponding to different users, there is no description in Tonnby of different MAC addresses for a multimedia network and a data network. The Office Action on page 4 concedes that Tonnby fails to disclose "wherein the sending the second request comprises: retrieving the quality of service parameter from the first request, sending the second request for a first network address using the first MAC address if the quality of service parameter indicates the multimedia connection, and sending the second request for a second network

address using the second MAC address if the quality of service parameter indicates the data connection." However, combining the system of Tonnby with the system of Krause, as suggested by the Office Action, would not make the present claimed application unpatentable.

Krause describes building data link layer (DLL) devices with multiple MAC addresses instead of a single MAC address (see col. 4, lines 31-34). Krause describes "[b]y using a separate unique MAC address and data channel for the multi-media module of a computer, video and audio data can be processed without software overhead, greatly reducing latency. Audio/video data can be sent directly without protocol headers, if the session is local, or with minimal protocol overhead if the data is routed from another network" (col. 25, lines 37-43). Therefore, Krause eliminates or reduces protocol headers in order to send audio video data. Krause fails to disclose or suggest "sending the second request for a first network address using the first MAC address if the quality of service parameter indicates the multimedia connection, and sending the second request for a second network address using the second MAC address if the quality of service parameter indicates the data connection" as recited in amended claim 1.

The Office Action cites col. 25, lines 25-60 and Figs. 15-16 of Krause as disclosing the features of the present claimed application. The cited passage describes using separate unique MAC addresses and data channels for a multimedia module. As seen in Fig. 15, a "network interface controller 801 is coupled to a network across line 802. A first interface of the network interface controller is coupled across line 803 to a main CPU 804. A second interface of the network interface controller is coupled across line 805 to a multi-media module 806 ... The multi-media module particularly serves the function of routing audio and video data across line 808 to audio/video hardware 809" (col. 25, lines 27-35). In Krause, a first MAC address is associated with line 803 and a second MAC address is associated with line 805. Thus, Krause assigns MAC addresses based on communication across lines and not based on a quality of service parameter indicating a multimedia connection or data connection, as recited in

amended claim 1. In this way, a first MAC address is assigned for the main CPU module and a second MAC address is assigned for the multi-media module. Krause may describe two different modules; however, the decision of which module to use is not based on a quality of service parameter indicating a multimedia or data connection. In claim 1, a "second request for a first network address using the first MAC address" is sent "if the quality of service parameter indicates the multimedia connection" and the "second request for a second network address using the second MAC address" is sent "if the quality of service parameter indicates the data connection." Krause describes routing of audio/video information and data information and using unique MAC addresses for each data path. However, the decision of which MAC address to use in Krause is determined based on a line (i.e. 803 or 805), not based on a quality of service parameter indicating either a multimedia connection or a data connection. Therefore, Krause fails to disclose or suggest "the first request having a quality of service parameter indicating one of a multimedia connection and a data connection" and "sending the second request for a first network address using the first MAC address if the quality of service parameter indicates the multimedia connection, and sending the second request for a second network address using the second MAC address if the quality of service parameter indicates the data connection" as recited in claim 1.

Thus, for the reasons discussed above, independent claim 1 is allowable over the cited art. Independent claim 10 is allowable for similar reasons. Since claims 2-6 and 8-9 depend from allowable independent claim 1, these claims are also allowable. Since claims 11-17 depend from allowable independent claim 10, these claims are also allowable.

Independent claim 18 was rejected as being unpatentable over Tonnby in view of Krause in further view of Chiang. In order to "establish *prima facie* obviousness of a claimed invention, all claim limitations must be taught or suggested by the prior art." In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Furthermore, "all words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382,

1385, 165 USPQ 494, 496 (CCPA 1970). See also MPEP § 2143.03. None of the cited references, either alone or in any combination, teach all of the claim limitations of independent claim 18. Therefore, Applicants request the withdrawal of the rejections under 35 U.S.C. §103(a).

Independent claim 18 is directed to a computer readable medium storing executable instructions and recites similar limitations to independent claim 1.

For the reasons described above with respect to independent claim 1, Tonny and Krause, when taken individually or in combination, fail to disclose or suggest "the first request having a quality of service parameter indicating one of a multimedia connection and a data connection" and "sending the second request for a first network address using the first MAC address if the quality of service parameter indicates the multimedia connection, and sending the second request for a second network address using the second MAC address if the quality of service parameter indicates the data connection," as recited in independent claim 18. Further, these limitations of independent claim 18 are not disclosed in Chiang, and the Office Action does not allege that these limitations are disclosed in Chiang, claim 18 is considered allowable.

Thus, for the reasons discussed above, independent claim 18 is allowable over the cited art. Since claim 20 depends from allowable independent claim 18, claim 20 is also allowable.

III. No New Matter has Been Added

Support for the amendments to the independent claims can be found at least in originally filed claims 8, 9, 17 and 20 and throughout the specification and more specifically at paragraphs [0025], [0030], [0044]-[0046], [0049] and Fig. 2. The claims were further amended to replace the word "said" with the word "the." Therefore, no new matter has been added by the claim amendments.

IV. Conclusion

For the reasons discussed above, all pending claims are allowable over the cited art. Reconsideration and allowance of all claims is respectfully requested.

Respectfully submitted,

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